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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,252	08/03/2001	Jen-Shou Tseng	112.P14025	7618
43831 7590 05/02/2007 BERKELEY LAW & TECHNOLOGY GROUP, LLP 1700 NW 167TH PLACE SUITE 240 BEAVERTON, OR 97006			EXAMINER VILLECCO, JOHN M	
			ART UNIT 2622	PAPER NUMBER
			MAIL DATE 05/02/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

09/922,252

**Applicant(s)**

TSENG ET AL.

**Examiner**

John M. Villecco

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,7,8 and 11-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7,8 and 11-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed January 30, 2007 have been fully considered but they are not persuasive.

Regarding claim 1, applicant argues that neither Hayakawa nor Umeda discloses an optical scanner. However, the examiner is taking the broad position that a camera is an optical scanner. MPEP § 2111 states that claims are to be given their broadest reasonable interpretation. One of ordinary skill in the art could reasonably call a camera an optical scanner.

Additionally, applicant argues that since Umeda discloses that the camera-shake motion vector detection circuit (107s) determines the camera shake post-capture, the combination with Hayakawa is improper. However, Umeda was used merely to show a vibration sensor mounted on a light sensitive charge storage device. Thus, how Umeda determines the vibration correction is irrelevant since Hayakawa discloses generating an actuator signal for correcting for the vibration. Umeda is used merely to show that it is well-known that camera shake detection circuits are commonly mounted on a light sensitive charge storage device. Furthermore, applicant argues that Umeda discloses a signal processing technique and not the technique used by the applicant. However, a review of claim 1 shows that how the vibration is measured is not specifically claimed. Thus, the vibration sensor could very well be a signal processing technique for determining camera shake, since the claim language does not exclude a signal processing technique from being used.

Furthermore, applicant argues that the proposed combination is not a proper combination since when Umeda and Hayakawa are combined they would result in a device in which the shake is not mechanically corrected. The examiner disagrees with this assertion. First of all, the embodiment shown in Figure 6 shows that a camera shake motion vector is output. This is akin to outputting a motion vector from a gyro or an acceleration sensor. Although not specifically described in the Umeda reference, one of ordinary skill in the art would recognize that this camera shake motion vector could easily be used by a camera system to optically correct for camera shake. Thus, the proposed combination is a proper combination since the combination of reference would include a vibration sensor, a controller to generate an actuator signal, and an actuator to adjust the optical system according to the actuator signal.

For the reasons stated above, the rejections of claims 1, 2, and 11 will be maintained.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 4, 5, and 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Hayakawa et al. (U.S. Patent No. 6,130,993).**

4. Regarding *claim 4*, Hayakawa discloses camera having an image stabilizer for reducing the effects of camera shake during a photographing operation. More specifically, Hayakawa

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discloses a light sensing device (CCD, 16), an optical system (mirror, 14), a vibration sensor (vibration sensor, 38) for detecting a magnitude of vibration of the light sensing device (col. 10, lines 36-38), a controller (CPU, 40) connected to the vibration sensor for measuring the magnitude of vibration of the light sensing device and producing a corresponding actuator signal, and an actuator (second stepper motor, 25) connected to the CPU (40) and the optical system (mirror, 14) for moving the mirror (14) such that effects due to vibration are minimized. See column 8, line 20 to column 10, line 67 and Figures 1 and 4. Although Hayakawa fails to specifically disclose how the vibration sensor is mounted on the light sensing device, it is inherently mounted somewhere on the body of the light sensing device (camera body (10) and film/CCD (16)) since that is the only place where a magnitude of vibration of the light sensing device can be accurately measured. Thus, since the claims do not require the vibration sensor to be mounted directly on the light sensitive charge storage device, Hayakawa meets the claim language because it still measures the magnitude of vibration of the light sensitive charge storage device. The claim language is sufficiently broad enough to read any portion of the camera (10) as the light sensitive charge storage device.

5. As for **claim 5**, as mentioned above in the discussion of claim 4, Hayakawa discloses that the optical system is a mirror (14), where in the actuator (stepper motor, 25) adjusts the mirror (14) by rotating it in order to reduce camera shake. See column 12, line 8 to column 13, line 31 and Figure 6.

6. With regard to **claim 19**, the vibration sensor (38) of Hayakawa senses the angular speed of the camera. This is interpreted by the examiner as detecting movement. See column 10, lines 30-45.

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7. Regarding *claim 20*, the vibration sensor (38) of Hayakawa determines a movement in a horizontal and vertical direction. Depending on a frame of reference, the horizontal and vertical direction can be any one of an X, Y, or Z directions.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa et al. (U.S. Patent No. 6,130,993).**

10. Regarding *claim 18*, as mentioned previously in the discussion of claim 4, Hayakawa discloses all of the limitations of the parent claim. However, Hayakawa fails to explicitly disclose that the method comprises scanning a document. Official Notice is taken as to the fact that it is well known in the art to use a camera to capture an image of a document. By capturing an image of a document the document can be electronically stored and viewed without the need to save a physical copy of the document and allows for transmission of that document over a plurality of media. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to capture a document using the camera of Hayakawa so that the image of the document can be electronically saved for future viewing.

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11. **Claims 1, 2, 7, 8, 12-17, and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayakawa et al. (U.S. Patent No. 6,130,993) in view of Umeda et al. (U.S. Patent No. 6,452,632).**

12. Regarding *claim 1*, Hayakawa discloses camera having an image stabilizer for reducing the effects of camera shake during a photographing operation. More specifically, Hayakawa discloses a light sensing device (CCD, 16), an optical system (mirror, 14), a vibration sensor (vibration sensor, 38) for detecting a magnitude of vibration of the light sensing device (col. 10, lines 36-38), a controller (CPU, 40) connected to the vibration sensor for measuring the magnitude of vibration of the light sensing device and producing a corresponding actuator signal, and an actuator (second stepper motor, 25) connected to the CPU (40) and the optical system (mirror, 14) for moving the mirror (14) such that effects due to vibration are minimized. See column 8, line 20 to column 10, line 67 and Figures 1 and 4.

Hayakawa, however, fails to specifically disclose that the vibration sensor is mounted on the light sensitive charge storage device. Umeda, on the other hand, discloses that it is well known in the art to mount a vibration detection circuit on an image sensing device. More specifically Umeda discloses a digital signal processor (107) mounted on the same substrate as the image sensor (102). The digital signal processor can include a camera shake detection circuit (107s). See Figure 36 and column 18, lines 55-67. This camera shake data is output and inherently used to correct the image signal. By implementing such circuits on the same chip as the image sensor, the number of parts can be reduced and thus, the price can be reduced (col. 2, line 12-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the vibration sensor of Hayakawa directly onto the light



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sensitive charge storage device of Hayakawa so that the number of parts can be reduced, and thus the price can be reduced.

13. As for *claim 2*, Hayakawa discloses that the optical system is a mirror (14), where in the actuator (stepper motor, 25) adjusts the mirror (14) by rotating it in order to reduce camera shake. See column 12, line 8 to column 13, line 31 and Figure 6.

14. With regard to *claim 11*, Hayakawa discloses that the image pickup device can be a CCD (col. 8, line 22).

15. Regarding *claim 15*, MPEP § 2114 states that apparatus claims must be distinguishable from the prior art in terms of structure rather than function. Therefore, the limitation found in claim 15 reciting the function of the optical scanner is not given patentable weight. However, in order counter any arguments, a rejection will also be made on claim 15. As mentioned previously in the discussion of claim 1, the combination of Hayakawa and Umeda discloses all of the limitations of the parent claim. However, the aforementioned references fail to explicitly disclose that the apparatus is adapted to scan a document. Official Notice is taken as to the fact that it is well known in the art to use a camera to capture an image of a document. By capturing an image of a document the document can be electronically stored and viewed without the need to save a physical copy of the document and allows for transmission of that document over a plurality of media. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to capture a document using the camera of Hayakawa so that the image of the document can be electronically saved for future viewing.

16. As for *claim 16*, the vibration sensor (38) of Hayakawa senses the angular speed of the camera. This is interpreted by the examiner as detecting movement. See column 10, lines 30-45.



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17. Regarding *claim 17*, the vibration sensor (38) of Hayakawa determines a movement in a horizontal and vertical direction. Depending on a frame of reference, the horizontal and vertical direction can be any one of an X, Y, or Z directions.

18. Regarding *claim 7*, Hayakawa discloses camera having an image stabilizer for reducing the effects of camera shake during a photographing operation. More specifically, Hayakawa discloses a light sensing device (CCD, 16), an optical system (mirror, 14), a means for sensing a vibration (vibration sensor, 38) for detecting a magnitude of vibration of the camera (col. 10, lines 36-38), a means for converting the vibration to an actuator signal (CPU, 40), and a means for adjusting (second stepper motor, 25) an optical system (mirror, 14) according to the actuator signal. See column 8, line 20 to column 10, line 67 and Figures 1 and 4. Giving the phrase “optical scanner” its broadest reasonable interpretation, the examiner is interpreting the camera of Hayakawa to be an optical scanner.

Hayakawa, however, fails to specifically disclose that the vibration sensor is mounted on the light sensitive charge storage device. Umeda, on the other hand, discloses that it is well known in the art to mount a vibration detection circuit on an image sensing device. More specifically Umeda discloses a digital signal processor (107) mounted on the same substrate as the image sensor (102). The digital signal processor can include a camera shake detection circuit (107s). See Figure 36 and column 18, lines 55-67. This camera shake data is output and inherently used to correct the image signal. By implementing such circuits on the same chip as the image sensor, the number of parts can be reduced and thus, the price can be reduced (col. 2, line 12-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the vibration sensor of Hayakawa directly onto the light

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sensitive charge storage device of Hayakawa so that the number of parts can be reduced, and thus the price can be reduced.

19. As for *claim 8*, Hayakawa discloses that the optical system is a mirror (14), where in the actuator (stepper motor, 25) adjusts the mirror (14) by rotating it in order to reduce camera shake. See column 12, line 8 to column 13, line 31 and Figure 6.

20. With regard to *claim 21*, the CCD of Hayakawa is interpreted as the means for scanning. However, Hayakawa does not specifically disclose that the CCD is used in scanning a document. Official Notice is taken as to the fact that it is well known in the art to use a camera to capture an image of a document. By capturing an image of a document the document can be electronically stored and viewed without the need to save a physical copy of the document and allows for transmission of that document over a plurality of media. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to capture a document using the camera of Hayakawa so that the image of the document can be electronically saved for future viewing.

21. As for *claim 22*, the vibration sensor (38) of Hayakawa senses the angular speed of the camera. This is interpreted by the examiner as detecting movement. See column 10, lines 30-45.

22. Regarding *claim 23*, the vibration sensor (38) of Hayakawa determines a movement in a horizontal and vertical direction. Depending on a frame of reference, the horizontal and vertical direction can be any one of an X, Y, or Z directions.

23. With regard to *claim 12*, Hayakawa discloses a camera having an image stabilizer for reducing the effects of camera shake during a photographing operation. More specifically, Hayakawa discloses a light sensing device (CCD, 16), an optical system (mirror, 14), a means

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for sensing a vibration (vibration sensor, 38) for detecting a magnitude of vibration of the camera (col. 10, lines 36-38), a means for converting the vibration to an actuator signal (CPU, 40), and a means for adjusting (second stepper motor, 25) an optical system (mirror, 14) according to the actuator signal. See column 8, line 20 to column 10, line 67 and Figures 1 and 4. Giving the phrase "optical scanner" its broadest reasonable interpretation, the examiner is interpreting the camera of Hayakawa to be an optical scanner.

Hayakawa, however, fails to specifically disclose that the vibration sensor is mounted on the light sensitive charge storage device of the optical scanner. Umeda, on the other hand, discloses that it is well known in the art to mount a vibration detection circuit on an image sensing device. More specifically Umeda discloses a digital signal processor (107) mounted on the same substrate as the image sensor (102). The digital signal processor can include a camera shake detection circuit (107s). See Figure 36 and column 18, lines 55-67. This camera shake data is output and inherently used to correct the image signal. By implementing such circuits on the same chip as the image sensor, the number of parts can be reduced and thus, the price can be reduced (col. 2, line 12-15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the vibration sensor of Hayakawa directly onto the light sensitive charge storage device of Hayakawa so that the number of parts can be reduced, and thus the price can be reduced.

24. As for *claim 13*, Hayakawa discloses that the optical system is a mirror (14), where in the actuator (stepper motor, 25) adjusts the mirror (14) by rotating it in order to reduce camera shake. See column 12, line 8 to column 13, line 31 and Figure 6.

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25. With regard to *claim 14*, Hayakawa discloses that the image pickup device can be a CCD (col. 8, line 22).

26. Regarding *claim 24*, MPEP § 2114 states that apparatus claims must be distinguishable from the prior art in terms of structure rather than function. Therefore, the limitation found in claim 15 reciting the function of the optical scanner is not given patentable weight. However, in order counter any arguments, a rejection will also be made on claim 15. As mentioned previously in the discussion of claim 1, the combination of Hayakawa and Umeda discloses all of the limitations of the parent claim. However, the aforementioned references fail to explicitly disclose that the apparatus is adapted to scan a document. Official Notice is taken as to the fact that it is well known in the art to use a camera to capture an image of a document. By capturing an image of a document the document can be electronically stored and viewed without the need to save a physical copy of the document and allows for transmission of that document over a plurality of media. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to capture a document using the camera of Hayakawa so that the image of the document can be electronically saved for future viewing.

27. As for *claim 25*, the vibration sensor (38) of Hayakawa senses the angular speed of the camera. This is interpreted by the examiner as detecting movement. See column 10, lines 30-45.

28. Regarding *claim 26*, the vibration sensor (38) of Hayakawa determines a movement in a horizontal and vertical direction. Depending on a frame of reference, the horizontal and vertical direction can be any one of an X, Y, or Z directions.

***Conclusion***

29. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Villecco whose telephone number is (571) 272-7319. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'John M. Villecco', with a long horizontal flourish extending to the right.

John M. Villecco  
April 17, 2007